IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for filtering comprising adaptive filtering an input signal,~~signal (x(n)),~~ interpolating ~~the filtered~~a filtered signal, interpolating the input signal ~~(x(n))~~ for adapting the adaptive filtering, ~~characterised in that~~wherein and adapting ~~the~~ properties ~~of the~~of an interpolation of the filtered signal.~~signal are adaptable.~~

2. (Currently Amended) The method according to claim 1~~, characterised in that~~wherien ~~it comprises~~ comprising providing a reference signal,~~signal (d(n)+z(n)),~~ and ~~combining the~~combining an interpolated filtered signal and the reference signal for forming an error signal.~~signal (e(n)).~~

3. (Currently Amended) The method according to claim 2~~, characterised in that~~wherien comprising adapting the properties of the interpolation ~~properties are adapted~~ according to the error signal ~~(e(n))~~ and the interpolated filtered signal.~~signal ($Y_i$(n)).~~

4. (Currently Amended) The method according to claim 2 ~~or 3, characterised in that~~wherein comprising adapting the properties of the interpolation ~~properties are adapted~~ by changing at least one coefficient of the interpolation.

5. (Currently Amended) The method according to claim 4~~, characterised in that~~wherein comprising adapting the at least one coefficient of the interpolation ~~is adapted~~ by using a normalized least mean square algorithm, wherein the method further comprises using the error signal and the interpolated filtered signal ~~are used~~ as inputs for the algorithm.

6. (Currently Amended) The method according to claim 2~~any of the claims 2 to 5, characterised in that~~wherein ~~it~~ comprising: ~~comprises the following steps:~~

a) computing the filtered ~~output by~~signal by an equation

$y(n) = W^t(n)X(n)$;

b) computing the interpolated filtered signal ~~by~~by an equation

$Y_I(n) = I^t(n)Y(n)$;

c) adapting ~~the~~ interpolation coefficients of an interpolator by an~~by~~ equation

$$\mathbf{I}(n+1) = \mathbf{I}(n) + \frac{\mu_I}{\varepsilon + \mathbf{Y}^t(n)\mathbf{Y}(n)} e(n)\mathbf{Y}(n)$$

where $\mu_I$ ~~is the~~is a step-size used to adapt the coefficients of the interpolator, $e(n)$ ~~is the~~is an output error, $I(n) = [i(n)_1, i(n)_2, \ldots, i(n)_M]^t$ ~~is the~~is an $M \times 1$ vector containing the interpolation coefficients of the interpolator, $Y(n) = [y(n), y(n-1), \ldots, y(n-M+1)]^t$ ~~is the~~is a vector of ~~the~~ past $M$ samples from the filtered signal $y(n)$, and $\varepsilon$ is a ~~small~~ constant;

d) computing the output error $e(n)$ ~~by~~by an equation

$e(n) = d(n) + z(n) - y_I(n)$;

e) computing ~~the filtered~~a filtered input vector $X_I(n)$ ~~by~~by an equation

$$\mathbf{X}_I(n) = \sum_{j=0}^{M-1} i_j \mathbf{X}(n-j)$$; and

f) updating filtering weights ~~by~~by an equation

$$\mathbf{W}(n+1) = \mathbf{F}\{\mathbf{W}(n) + \mu e(n)\mathbf{X}_I(n)\} + \mathbf{q}.$$

7. (Currently Amended) The method according to ~~any of the claims~~claim 1 ~~to 6, characterised in that~~wherein comprising using finite impulse response filtering ~~is used~~ in said adaptive filtering.

8. (Currently Amended) An apparatus ~~(1)~~ comprising

an adaptive filter ~~(2)~~ for filtering an input signal;~~signal (x(n));~~

a first interpolator ~~(3)~~ for interpolating ~~the filtered~~a filtered signal;~~signal,~~

a second interpolator ~~(7)~~ for interpolating the input signal, ~~signal (x(n)),~~ wherein ~~the interpolated~~an interpolated input signal is arranged to be used to adapt the adaptive ~~filter (2)~~filter; and ~~characterised in that~~wherein ~~the apparatus (1) further comprises~~

a first adapting block ~~(4)~~ for adapting the properties of the first ~~interpolator~~interpolator. ~~(3)~~.

9. (Currently Amended) The apparatus ~~(1)~~ according to claim 8, ~~characterised in that~~wherein ~~it~~ also ~~comprises~~comprising an input ~~(5.2)~~ for receiving a reference signal,~~signal (d(n)+z(n)),~~ and a combiner ~~(5)~~ for ~~combining the~~combining an interpolated filtered signal and the reference signal for forming an error signal.~~signal (e(n)).~~

10. (Currently Amended) The apparatus ~~(1)~~ according to claim 9, ~~characterised in that~~wherein the ~~interpolation~~ properties are arranged to be adapted according to the error signal ~~(e(n)) and the~~and an interpolated filtered signal.~~signal ($Y_i$(n)).~~

11. (Currently Amended) The apparatus ~~(1)~~ according to claim 9, ~~claim 9 or 10, characterised in that~~ wherein the first adapting block ~~(4)~~ is ~~arranged~~ adapted to change at least one coefficient of the first ~~interpolator (3).~~interpolator.

12. (Currently Amended) The apparatus ~~(1)~~ according to claim 11, ~~characterised in that~~ wherein the first adapting block ~~(4)~~ is ~~arranged~~ adapted to use a normalized least mean square algorithm to adapt the at least one coefficient of the first ~~interpolator (3)~~interpolator, wherein the error signal and the interpolated filtered signal are arranged to be used as inputs for the algorithm.

13. (Currently Amended) The apparatus ~~(1)~~ according to claim 8, ~~any of the claims 8 to 11, characterised in that~~wherien ~~it~~ also ~~comprises~~comprising a second adapting block ~~(6)~~ for ~~adapting the~~adapting properties of the adaptive filter.~~filter (2).~~

14. (Currently Amended) The apparatus ~~(1)~~ according to claim 8,~~any of the claims 8 to 13, characterised in that~~ wherein said adaptive filter ~~(2)~~ is a FIR filter.